

What is claimed is:

1. A medical electrical lead comprising an elongated conductor including one or more wires made of a modified MP35N alloy;

wherein the alloy is formed from a melt composition modified to reduce an amount of titanium-based inclusion forming elements.

2. The medical electrical lead of claim 1, wherein the inclusion forming elements include titanium and the modification of the melt composition includes eliminating the titanium as an additive to the melt composition.

3. The medical electrical lead of claim 2, wherein the alloy contains less than approximately .001% titanium by weight

4. The medical electrical lead of claim 1, wherein the inclusion forming elements include a gaseous oxygen and nitrogen and the modification of the melt composition includes eliminating the gaseous oxygen and nitrogen under high vacuum conditions.

5. The medical electrical lead of claim 1, wherein the conductor is a coiled conductor.

6. The medical electrical lead of claim 1, wherein the conductor is a cabled conductor.

7. The medical electrical lead of claim 1, wherein a minimum diameter of the one or more wires is between approximately 0.0005 inch and approximately 0.01 inch.

8. The medical electrical lead of claim 7, wherein a minimum diameter of the one or more wires is between approximately 0.0005 inch and approximately 0.003 inch.

9. A medical electrical lead comprising an elongated conductor including one or more wires made of a modified MP35N alloy;

wherein the alloy contains less than approximately .001% titanium by weight.

10. The medical electrical lead of claim 9, wherein the conductor is a coiled conductor.

11. The medical electrical lead of claim 9, wherein the conductor is a cabled conductor.

12. The medical electrical lead of claim 9, wherein a minimum diameter of the one or more wires is between approximately 0.0005 inch and approximately 0.01 inch.

13. The medical electrical lead of claim 12, wherein a minimum diameter of the one or more wires is between approximately 0.0005 inch and approximately 0.003 inch.

14. A medical electrical lead comprising a conductor including one or more wires made of an MP35N alloy;

wherein the one or more wires contain titanium-based inclusions, an average number of which is less than 100,000 per square inch

15. The medical electrical lead of claim 14, wherein the average number of titanium-based inclusions have a maximum diameter not exceeding approximately one micron.

16. The medical electrical lead of claim 14, wherein the conductor is a coiled conductor.

17. The medical electrical lead of claim 14, wherein the conductor is a cabled conductor.

18. The medical electrical lead of claim 14, wherein a minimum diameter of the one or more wires is between approximately 0.0005 inch and approximately 0.01 inch.

19. The medical electrical lead of claim 18, wherein a minimum diameter of the one or more wires is between approximately 0.0005 inch and approximately 0.003 inch.